

FORM PTG-1390 (Modified) (REV 11-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER <b>55043</b>
<b>TRANSMITTAL LETTER TO THE UNITED STATES</b> <b>DESIGNATED/ELECTED OFFICE (DO/EO/US)</b> <b>CONCERNING A FILING UNDER 35 U.S.C. 371</b>			U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR <b>09/622,846</b>	
INTERNATIONAL APPLICATION NO. <b>PCT/IE99/00012</b>	INTERNATIONAL FILING DATE <b>25 February 1999</b>		PRIORITY DATE CLAIMED <b>25 February 1998</b>	
TITLE OF INVENTION <b>HLA LINKED PRE-ECLAMPSIA AND MISCARRIAGE SUSCEPTIBILITY GENE</b>				
APPLICANT(S) FOR DO/EO/US <b>M. O'BRIEN, et al.</b>				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below. ..</li> <li>4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31).</li> <li>5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c) (2)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</li> <li>11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</li> <li>12. <input type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</li> </ol>				
Items 13 to 20 below concern document(s) or information included:				
<ol style="list-style-type: none"> <li>13. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>15. <input type="checkbox"/> A <b>FIRST</b> preliminary amendment.</li> <li>16. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</li> <li>17. <input type="checkbox"/> A substitute specification.</li> <li>18. <input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li>19. <input checked="" type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.</li> <li>20. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li> <li>21. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>22. <input checked="" type="checkbox"/> Certificate of Mailing by Express Mail</li> <li>23. <input checked="" type="checkbox"/> Other items or information:</li> </ol>				
<b>Submission of Sequence Listing Computer Redable Copy</b>				

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 09/622,846	INTERNATIONAL APPLICATION NO. PCT/IE99/00012	ATTORNEY'S DOCKET NUMBER 55043
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24. The following fees are submitted.:

**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :**

<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO .....	\$1000.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO .....	\$860.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO .....	\$710.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) .....	\$690.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) .....	\$100.00

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

**\$0.00**

Surcharge of **\$130.00** for furnishing the oath or declaration later than  
months from the earliest claimed priority date (37 CFR 1.492 (e)).

20     30

**\$0.00**

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	- 20 =	0	x \$18.00	<b>\$0.00</b>
Independent claims	- 3 =	0	x \$80.00	<b>\$0.00</b>
Multiple Dependent Claims (check if applicable).			<input type="checkbox"/>	<b>\$0.00</b>

**TOTAL OF ABOVE CALCULATIONS =**

**\$0.00**

<input type="checkbox"/> Applicant claims small entity status. (See 37 CFR 1.27). The fees indicated above are reduced by 1/2.				<b>\$0.00</b>
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**SUBTOTAL =**

**\$0.00**

Processing fee of <b>\$130.00</b> for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)).	<input type="checkbox"/> 20 <input type="checkbox"/> 30	+ <b>\$0.00</b>
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**TOTAL NATIONAL FEE =**

**\$0.00**

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).	<input type="checkbox"/>			<b>\$0.00</b>
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**TOTAL FEES ENCLOSED =**

**\$0.00**

<b>Amount to be: refunded</b>	<b>\$</b>
<b>charged</b>	<b>\$</b>

- a.  A check in the amount of \_\_\_\_\_ to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-1105. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

Peter F. Corless (Reg. No. 33,860)  
EDWARDS & ANGELL, LLP  
P.O. Box 9169  
Boston, MA 02209

*Christine C. O'Day*

**SIGNATURE**

**Christine C. O'Day**

**NAME**

**38,256**

**REGISTRATION NUMBER**

**July 10, 2001**

**DATE**

10 JULY 2001

Practitioner's Docket No. 55043 (71878)

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: M. O'Brien et al.

Application No.: 09/622,846

Group No.: not yet assigned

Filed: 25 August 2000

Examiner: not yet assigned

For: HLA LINKED PRE-ECLAMPSIA AND MISCARRIAGE SUSCEPTIBILITY GENE

**Box Sequence**  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**SUBMISSION OF "SEQUENCE LISTING," COMPUTER READABLE COPY,  
AND/OR AMENDMENT PERTAINING THERETO  
FOR BIOTECHNOLOGY INVENTION CONTAINING NUCLEOTIDE**

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**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***  
(When using Express Mail, the Express Mail label number is **mandatory**;  
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

**37 C.F.R. § 1.8(a)**

**37 C.F.R. § 1.10\***

with sufficient postage as first class mail.

as "Express Mail Post Office to Address"  
Mailing Label No. EL 895418278 US  
(**mandatory**)

**TRANSMISSION**

transmitted by facsimile to the Patent and Trademark Office.

Signature

Laura M. McGuire

Date: July 10, 2001

(type or print name of person certifying)

**\*WARNING:** Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight

## AND/OR AMINO ACID SEQUENCE

(check and complete this item, if applicable)

1. [X] This replies to the Office Letter DATED May 15, 2001.

NOTE: If these papers are filed before the office letter issues, adequate identification of the original papers should be made, e.g., in addition to the name of the inventor and title of invention, the filing date based on the "Express Mail" procedure, the serial number from the return post card or the attorney's docket number added.

[X] A copy of the Office Letter is enclosed.

## IDENTIFICATION OF PERSON MAKING STATEMENT

2. I, Christine C. O'Day  
(type or print name of person signing below)

state the following:

## ITEMS BEING SUBMITTED

3. Submitted herewith is/are

(check each item as applicable)

- A. [X] "Sequence Listing(s)" for the nucleotide and/or amino acid sequence(s) in this application. Each "Sequence Listing" is assigned a separate identifier as required in 37 C.F.R. § 1.821(c) and 37 C.F.R. §§ 1.822 and 1.823.
- B. [ ] An amendment to the description and/or claims, wherein reference is made to the sequence by use of the assigned identifier, as required in 37 C.F.R. § 1.821(d).
- C. [X] A copy of each "Sequence Listing" submitted for this application in computer readable form, in accordance with the requirements of 37 C.F.R. §§ 1.821(e) and 1.824.
- D. [ ] Please transfer to this application, in accordance with 37 C.F.R. § 1.821(e), the computer readable copy(ies) from applicant's other application identified as follows:

In re application of:

Application No.: 0 /

Group No.:

Filed:

Examiner:

For:

The Computer readable form(s) of applicant's other application corresponds to the "Sequence

Identifier(s)" of the application as follows:

Computer Readable Form	"Sequence Identifier"
(other application)	(this application)

**NOTE:** "If the computer readable form of a new application is to be identical with the computer readable form of another application of the applicant on file in the Office, reference maybe made to the other application and computer readable form in lieu of filing a duplicate computer readable form in the new application. The new application shall be accompanied by a letter making such reference to the other application and computer readable form, both of which shall be completely identified." 37 C.F.R. § 1.821(e).

- E.  A statement that the content of each "Sequence Listing" submitted and each computer readable copy are the same, as required in 37 C.F.R. § 1.821(g).

Because the statement is not made by a person registered to practice before the Office, the Statement is verified as required in 37 C.F.R. § 1.821(b).

- F.  Because this submission is made in fulfilling the requirement under 37 C.F.R. § 1.821(g), a statement that the submission includes no new matter.

Because the statement is not made by a person registered to practice before the Office, the statement is verified, as required in 37 C.F.R. § 1.821(g).

**STATEMENT THAT "SEQUENCE LISTING"  
AND COMPUTER READABLE COPY ARE THE SAME  
AND/OR THAT PAPERS SUBMITTED INCLUDES NO NEW MATTER**

4. I hereby state:

*(complete applicable item A and/or B)*

- A.  Each computer readable form submitted in this application, including those forms requested to be transferred from applicant's other application, is the same as the "Sequence Listing" to which it is indicated to relate.
- B.  All papers accompanying this submission, or for which a request for transfer from applicants' other application, introduce no new matter.

## STATUS

5. Applicant is

[ X ] a small entity. A statement:

[ ] is attached.

[X] was already filed.

[ ] other than a small entity.

## EXTENSION OF TERM

6.

NOTE: "Extension of Time in Patent Cases (Supplement Amendments) If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of Dec. 10, 1985 (1061 O.G. 34-35).

NOTE: See 37 C.F.R. § 1.645 for extensions of time in interference proceedings and 37 C.F.R. § 1.550(c) for extensions of time in reexamination proceedings.

7. The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

*(complete (a) or (b) as applicable)*

(a) [ ] Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(4)) for the total number of months checked below:

<u>Extension (months)</u>	<u>Fee for other than small entity</u>	<u>Fee for small entity</u>
[ ] one month	\$110.00	\$ 55.00
[ ] two months	\$390.00	\$ 195.00
[ ] three months	\$890.00	\$ 445.00
[ ] four months	\$1,390.00	\$ 695.00

Fee \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

(Submission-Nucleotide and/or Amino Acid Sequence—page 4 of 6)

*(check and complete the next item, if applicable)*

[ ] An extension for \_\_\_\_\_ months has already been secured, and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ \_\_\_\_\_

OR

(b) [X] Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

#### FEE PAYMENT

8. [ ] Attached is a check in the sum of \$ \_\_\_\_\_.

[ ] Charge Account No. \_\_\_\_\_ the sum of \$ \_\_\_\_\_.  
A duplicate of this transmittal is attached.

#### FEE DEFICIENCY

9.

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

10. [X] If any additional extension and/or fee is required, charge Account No. 04-1105.

#### SIGNATURE(s)

Christine C. O'Day  
(type or print name of person signing statement)

Christ C. O'Day  
Signature (38, 256)

July 10, 2001

Date

EDWARDS & ANGELL, LLP  
DIKE, BRONSTEIN, ROBERTS & CUSHMAN  
Intellectual Property Practice Group  
P. O. Box 9169, Boston, MA 02209  
P.O. Address of Signatory

*(If applicable)*

Tel. No.: (617) 439-4444  
Fax No.: (617) 439-4170  
Customer No. 21874

- Inventor  
 Assignee of complete interest  
 Person authorized to sign on behalf of assignee  
 Practitioner of record  
 Filed under Rule 34(a)  
 Registration No. 38,256  
 Other  
*(specify identity of person signing)*

*(complete the following, if applicable)*

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*(type name of assignee)*

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Address of assignee

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Title of person authorized to sign on behalf of assignee

A "STATEMENT UNDER 37 C.F.R. 3.73(b)" is attached.

Assignment recorded in PTO on \_\_\_\_\_  
Reel \_\_\_\_\_ Frame \_\_\_\_\_

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**SIGNATURE OF PRACTITIONER**

Reg. No.

---

*(type or print name of practitioner)*

Tel. No.: ( )

---

P.O. Address

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Customer No.: